# **EXHIBIT 9**[Filed Under Seal]

# Privacy Scenarios Analysis Plan

Last updated: July 31, 2019

## Working group

Stakeholders: Chetna Bindra, Nitish Korula, Rahul Srinivasan, Scott Spencer

- Apps
  - APAT- Conor, Eddie (buyside), Kenny (consulting), Connie
  - Sellside Yan Zhang, Heeten
  - Noether (Buyside) leads
    - PM: Peter Sologoub, Lawrence Chang, Vinod Koverkathu (OTT)
    - Eng: EuJin, Karthik
- Web
  - o APAT- Andrey, Connie
  - Sellside Heeten, Steven Delong, Hyewon Jun
  - Buyside Deepak Ravichandran, Yijian Bai, Wei Shi
  - Finance Ben Malthus (Display), Atanas? (Search), TBD (YT)
- Youtube
  - o APAT Tarun, Connie
  - o Eng Vic Liu

Al (ccchoi): Send weekly updates to this group!
When ITP2 was announced, where did the money shift?
Kai brodersen, Romil (budgeting), Matt (optional) - original model guy?, Basar (ITP, PM),

EOM on Noether, ACM - they could use these #s as well

Apps
Experiments; Impact of losing 1P cookie, IDFA, App ID
IDFA
of effectiveness of campaign
iOS
Conversion tracking, ACE, install campaigns - we are still ok, use GCLID BUT need google SDK (firebase)
% of revenue firebase coverage SDK when looking at ACE (lower bound)
2nd order: scramble to update SDKs
App ID

sign-in, play install info no scenarios where we are blind from a

technical standpoint

Haven't looked into this

Check with Android TV team vkk@

OTT

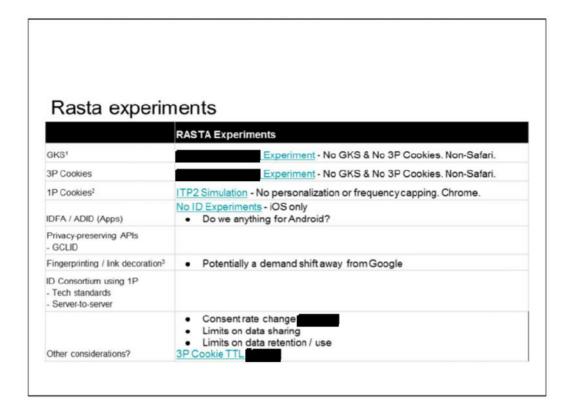
May be self blinded from a policy standpoint

Dimensions - What are	e the scenarios? (Web, conve	rsions from Web for App)	
	No 3P Cookies	3P Cookies, w/constraints	
GKS <sup>1</sup>	x	✓	
3P Cookies	×	✓	
1P Cookies <sup>2</sup>	?	✓	
IDFA / ADID (Apps)	x	√.	
Privacy-preserving APIs - GCLID	<b>✓</b>	<b>√</b>	
Fingerprinting / link decoration <sup>3</sup>	×	×	
ID Consortium using 1P - Tech standards - Server-to-server	?	✓	
Other considerations?	Consent rate change (Narnia3)     Limits on data sharing     Limits on data retention / use		

- [1] GKS may not be available in no 3P cookie condition. GKS could be tied to 3P cookies in Chrome.
- [2] Google maybe. Others may take action against this explicitly [3] Google no. Others do this already / might start doing this

Dimensions - Apps				
	No 3P Cookies	3P Cookies, w/constraints		
GKS <sup>1</sup>	Х	✓		
3P Cookies	×	✓		
1P Cookies <sup>2</sup>	2	✓		
IDFA / ADID (Apps)	x	✓		
Privacy-preserving APIs - GCLID	*	✓		
Fingerprinting / link decoration <sup>3</sup>	×	X		
ID Consortium using 1P - Tech standards - Server-to-server	?	✓		
Other considerations?	<ul> <li>Consent rate change (Namia3)</li> <li>Limits on data sharing</li> <li>Limits on data retention / use</li> </ul>			

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- [1] GKS may not be available when user opts out of 3P cookies (
- [2] Google maybe. Others may take action against this explicitly
- [3] Google no. Others do this already / might start doing this

ld	Date	Text	
1	07/31/2019 15:35:43	+deepakr@google.com I've added the experiment results we used in prior analyses. Please supplement any additional experiments you think will be helpful!  _Assigned to Deepak Ravichandran_	

# No 3P Cookies - Scope

#### Products

- Display buyside DBM, GDN, AdX
- Search remarketing (+AFS)
- Youtube remarketing

#### Platforms / browsers

- · Chrome, Safari
- Mobile, desktop, web, webview
- iOS, Android, OTT (Apps)
- · Signed in vs. signed out

Differentiating between AdID going away (iOS, Android) vs. 3P Cookies going away (Chrome)

AI (Deepak, Yijian): RASTA experiment, documentation here

### No 3P Cookies - Effects

#### First order effects

Direct impacts due to the loss of 3P cookie (web) and device ID (app)

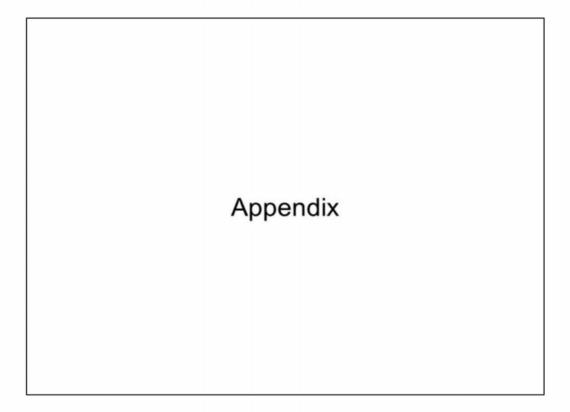
- Bidding
- Targeting
- · Attribution / measurement

#### Second order effects

Conscious decisions made by advertisers or publishers in response to the change

- Where does the lost \$\$\$ go?
  - Other Ad Tech companies (which ones?)
  - Other walled gardens w/Ad Tech
  - Redistributed back to Google
  - Redistribution across channels
- Organic search impact

- Other walled gardens w/Ad Tech = FB, AMZN
- Yavin(?)
- Organic search impact E.g. What happens when the long-tailed pubs no longer appear in search results?
- May need to add channel breakdown (e.g. Display vs. others)



Youtube remarketing not affected beause viral stack, not 3P cookie RSLA currently still works rn because it's getting remarketing lists from other browsers We would just lose the premium

Analysis resources	
Chrome model (go/chromebb)	
App Network IDFA Deprecation Model	

### No 3P Cookies

No 3P cookies. Strong enforcement against fingerprinting, but potentially some ID consortia. Identity continues to exist in walled gardens.

- · Publishers shift inventory to walled gardens
  - Google demand weakens (e.g. no cookies on FB webviews)
  - Indirect effect on Search
  - o Larger pubs (re)turning increasingly to direct deals with their largest advertisers
- DBM no longer has identity when buying on 3PE
- · AdX buyers shift to header bidding
- Google may shift to bid using privacy-preserving APIs / federated learning techniques, if they exist

- What are the innovations that Google will be doing to address changes?
- How are we supporting publishers for each change
- Ask Tarun about Youtube impact on remarketing -- might not have an impact

# 3P Cookies (w/constraints)

World in which third-party cookies continue to exist, but with some constraints.

- Google limits data usage or retention, reducing remarketing revenue.
- Users have opt-outs and controls, enforced by regulation. This could also affect monetization negatively
- Walled gardens may still be exempt in this world, but the hope is that the monetization delta would be reduced.
- DBM buying on 3PE and AdX buyers could get identifiers when the user has not opted out, and we can bid using privacy-preserving APIs for the other users, if these APIs exist